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# Worldwide Report

ENVIRONMENTAL QUALITY

No. 226



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GREAT BARRIER REEF GIVEN HIGH PRIORITY FOR RESEARCH

Sydney THE SYDNEY MORNING HERALD in English 29 Aug 79 p 8

[Text]

CANBERRA.—The Australian Science and Technology Council has named the Great Barrier Reef as a high priority region for more research.

In a report tabled in Federal Parliament, the council named Bass Strait, the North-west Shelf, the Great Australian Bight and the Gulf of Carpentaria as other priority areas.

The report said that little research had been done on the Great Barrier Reef, despite its size, and vital questions needed to be asked on the overall dynamics of the reef system and the waters which influenced it.

It said that it was difficult to

disentangle the results of human influence from natural fluctuations, but there was no doubt major disturbances were due to:

**Farming** — with soil erosion depositing mud and the output of pesticides and fertilisers.

**Tourism** — including shell collecting, fishing, building and sewage.

**Shipping** — including the possibility of shipwreck, particularly of tankers.

The report said that little was known about the outcome of a catastrophe like the wreck of an oil tanker, and questions such as whether oil spills should be dispersed or left in bulk still had to be answered.

## AUSTRALIA

### FEDERAL, STATE GOVERNMENTS TO STUDY SOIL EROSION POLICY

Canberra THE AUSTRALIAN in English 30 Aug 79 p 2

[Article by Louise West]

[Text] The Federal Government will consult with the States to thrash out a national soil conservation policy.

At present, soil conservation is the responsibility of State governments, which work together under the guidance of the joint Commonwealth-State standing committee on soil erosion.

But more than a third of Australia has serious soil erosion problems in urgent need of treatment. And, according to the standing committee, land degradation has reached "disturbing proportions" in less than 200 years.

The committee's 1978 soil conservation study states that 5 million square kilometres is devoted to agricultural and pastoral production.

Of that, 1.48 million square kilometres need some form of treatment and at 1975 costs, conservation work for affected or "at risk" areas would amount to \$675 million.

A national policy would presumably bring together each State's research findings and co-ordinate soil conservation operations throughout Australia to gain maximum benefit at minimum cost in the shortest possible time.

The decision to meet the States to formulate a national policy is a direct result of a recommendation by the joint standing committee on soil erosion.

The Minister for National Development, Mr Newman, said: "The Government accepts in principle the need for Commonwealth assistance to accelerate soil conservation throughout Australia."

The chief conservationist of the NSW Soil Conservation Service, Mr D. Longworth, said

erosion control measures differed for each type of land and control could be through improved land management or specialised soil conservation practices.

"Landholders, including the Government, are principally responsible for the care and husbandry of their land," he said.

"But the community should realise if they don't become involved then the land will not be able to keep up with its productivity.

"Any money spent will be commensurate to

what is reaped.

"The principle form of erosion is in gullies and on grazing land. It is important that land management practices and water flow control are maintained," he said.

"Our works include such techniques as strip cropping, minimum or zero tillage, and reserving damaged areas."

Conservation services monitor land and ensure restrictions are implemented when land is threatened by erosion or salination, Mr Longworth said.



## AUSTRALIA

### BRIEFS

**LEAD LEVEL SURVEY**--The Federal Health Minister, Mr Hunt, has called for an urgent review of lead levels in schoolchildren. The move follows growing community concern, particularly in Sydney, about the use of high-lead content petrol. Mr Hunt told Parliament yesterday he had asked the National Health and Medical Research Council to advise him on lead levels. The NSW Premier, Mr Wran, yesterday welcomed Mr Hunt's announcement. "We would welcome an inquiry into a problem which concerns many people in the community," he said. "It shows a changing attitude by the Federal Government, whose other spokesmen have suggested increasing the amount of lead." [Excerpts] [Canberra THE AUSTRALIAN in English 30 Aug 79 p 3]

**WEST AUSTRALIAN SALINITY**--The Public Works Department will investigate alternative schemes to divert the Tone River in the south of the State because of salinity problems. The Acting Minister for Works, Mr Ridge, said yesterday that one proposal was for a diversion through Lake Muir into the Frankland River. Because of the department's other commitments, the work would take about 12 months. According to the National Country Party, diversion of the saline waters of the Tone and Kent Rivers to the Frankland would allow 472 farmers in the Warren River catchment and Kent River water reserves to continue clearing for agriculture. [Excerpts] [Perth THE WEST AUSTRALIAN in English 23 Aug 79 p 13]

**MURRAY RIVER WATER QUALITY**--Adelaide: The future of water quality in the River Murray will be discussed in Melbourne in October at a meeting called by the South Australian Minister of Water Resources, Mr Payne. Others at the meeting will be the NSW Minister of Water Resources, Mr Gordon, the Victorian Minister of Water Supply, Mr Granter, and Minister for National Development, Mr Newman. It will discuss proposed amendments to the River Murray waters agreement, which will allow the River Murray Commission to take formal account of water quality. At present it has control only over quantity. SA has been seeking the amendments for a number of years to try to improve water quality in the State. [Text] [Perth THE WEST AUSTRALIAN in English 29 Aug 79 p 46]

**VICTORIA ASBESTOS REGULATIONS**--Victoria's regulations on the exposure of workers to asbestos dust were inadequate and poorly enforced, the Victorian Industrial Convention was told yesterday. Addressing a seminar on asbestos and mineral fibres, Mr. Richard Gillespie of the Workers Health Action Group said

the present allowable exposure levels were too high. Labor and Industry regulations set the standard of acceptable exposure at two asbestos fibres less than three micrometres wide and five micrometres long in each millilitre of work space air. Mr. Gillespie said a recent British study had shown the two-fibre standard could raise workers' risk of asbestos-related disease to between five and 10 percent. This was based on a work-contact period of 50 years. Asbestos regulations were poorly implemented to the extent that some employers did not know they existed. [Excerpts] [Melbourne THE AGE in English 23 Aug 79 p 15] The asbestos industry was still a danger to workers, an industrial scientist said yesterday. Dr. David Kilpatrick, of the Workers Health Service, was commenting on a coroner's finding that a man died as a result of exposure to asbestos in a factory 40 years ago. Dr. Kilpatrick said the present State Government-approved "acceptable level" of asbestos to which workers could be exposed was not safe, was not policed, and protected employers from possible future claims for damages. He said employers should be held criminally responsible for exposing workers to hazards as well known as asbestos. [Excerpt] [Melbourne THE AGE in English 25 Aug 79 p 14]

HERBICIDE BANS--Canberra.--The Federal Government has banned the sale of the widely used herbicide Nitrofen marketed as Tok E-25 until it is tested. The ban follows the discovery of previously unknown toxic effects from the herbicide which is used to control weeds in agricultural crops. It was brought to the notice of health authorities by the Melbourne company Rohm & Haas (Australia) Pty. Ltd. which distributes the chemical in Australia. [Text] [Melbourne THE AGE in English 25 Aug 79 p 1] Hobart.--The Tasmanian Government yesterday banned the sale and use of the herbicide Nitrofen, marketed as Tok E-25. It is used to control weeds in oil poppy and vegetable crops in Tasmania, particularly on the north-west coast. [Excerpts] [Brisbane THE COURIER-MAIL in English 25 Aug 79 p 3]

24D ESTER BAN DENIED--The Minister for Agriculture, Mr Old, yesterday refused a request to ban the use of the herbicide 24D ester. He told the Legislative Assembly he was aware of a claim by Geraldton growers that spray had ruined crops. The Department of Agriculture had examined cuttings of tomato plants from within 6.5 km of the centre of Geraldton and found slight damage. Replying to Mr J. P. Carr (Lab., Geraldton), Mr Old said that alternative herbicides were recommended during the growth. The herbicide 24D ester was recommended in the later stages of cereal growth. The recommendations applied throughout the cereal growing areas. [Text] [Perth THE WEST AUSTRALIAN in English 23 Aug 79 p 4]

CSO: 5000

## POLLUTION OF RIVERS, MALACCA STRAITS IS INCREASING

Kuala Lumpur BUSINESS TIMES in English 11 Aug 79 p 6

[Article by Tan Siok Choo]

[Text]

**DESPITE** abundant rainfall averaging at least 80 inches a year, the presence of numerous streams, rivers and lakes, and the seas fringing its shores, the situation in Malaysia by the turn of the century may be summed up as a case of "water, water, everywhere, but not a drop to drink."

Not because of any lack of water — but because it may become so polluted as to be almost undrinkable.

According to environmental experts, there are 43 grossly polluted rivers in Malaysia. These rivers, are, therefore, incapable of sustaining fish or any form of aquatic life. Another 18 rivers are moderately polluted. This means pollution is not so severe and occurs mostly downstream or only at the mouths of rivers.

The Straits of Malacca is one of the world's most frequented waterways and also, possibly the dirtiest. An average of 90 ships, mainly oil tankers, pass through the straits each day, discharging some 810 pounds of sewage, 2,000 pounds of light garbage and almost 1,000 gallons of fuel waste.

A 1971 survey showed that factories sited along the straits spewed out some 208 tonnes of sewage, 872 tonnes of light garbage and 2,000 tonnes of fuel waste.

The rising level of pollution in the straits has affected the fishermen living along the west coast, which accounts for 75 per cent of the total catch of Peninsular Malaysia. More than 50,000 who derive their livelihood from fishing along the west coast have suffered a decline in incomes due to the drop in fish landings — from 433,000 tons in 1973 to only 378,000 tons in 1978. This fall shows no sign of being arrested, let alone reversed.

This has resulted in an increase in the price of fish, which in turn affects the cost of living, since fish protein provides almost two-thirds of the total protein in the Malaysian diet.

Not surprisingly, the Department of Environment has singled out water pollution as one of the most serious environmental problems in Malaysia.

According to the department, the worst culprits are the agro-based industries which accounted for 16 per cent of complaints made, with effluents from other industries accounting for another 30 per cent and mining 18 per cent.

Among the agro-based industries, palm oil was by far the single largest source of pollution. Some 13 per cent of the complaints related to it, with rubber, some distance behind with 33 per cent.

It is estimated that the 130 palm oil mills in operation in Malaysia spill out some 800,000 pounds or 360 metric tons of pollutants per day. This is equivalent to the pollution load from nearly half the population of Peninsular Malaysia. By 1980, the amount of pollutants discharged is expected to double, due to an increase in palm oil refining capacity.

Other causes of water pollution are soil erosion, pig rearing, construction activities and the practice of dumping rubbish into inland waterways.

A large proportion of the Malaysian population still depend on rivers and irrigation canals, not only for farming and fish breeding, but also for domestic purposes. The protection of surface water is, therefore, particularly vital, especially in the rural areas where only 40 per cent of the rural population have proper latrines, and only a small proportion of the urban population is using flush toilets connected to community waterborne sewage system.

This means that untreated sewage from the rest of the population flows into rivers and waterways. It is estimated that sewage and domestic waste water account for about 30 per cent of the total pollution in the country's rivers. The potential health hazard posed by contamination

from domestic sources is, thus, considerable.

Pollution carries a high economic cost. Water pollution increases the burden of water treatment, making it more difficult and costlier to purify. It also diminishes the amount of "swimmable water" and poses a threat to aquatic life.

There is a considerable body of legislation governing the discharge of industrial effluents and other pollutants into waterways and the government has established an Environmental Quality Council to serve as an advisory agency. But is it debatable whether the Department of Environment has the necessary manpower to keep a check on all the industries located in the vicinity of waterways.

One complaint levelled against the Environmental Quality Act, 1974 is that if the director-general attaches a condition before granting a licence, this condition does not take effect if there is an appeal against the decision of the director-general. This is obviously contrary to the purpose of the Act, since it allows a factory or industrial plant to continue its polluting activities, until the appeal is heard, which may take as long as three years.

Another critic, Mr John Doraisamy, an educationist at the University of Malaya, suggested that class actions should be allowed. This means, that any citizen, by virtue of his status as a member of the public can sue government agencies, industries as a private citizen to force a reconsideration of its decisions.

Mr Gurmit Singh, president of the Environmental Protection Society, Selangor, one of the societies in the forefront of the battle against pollution, suggested that citizen groups should be represented on the Environmental Quality Council and any exemption from present and future regulations should only be made by the director-general on the advice of the Environmental Quality Council.

He also suggested that it would be far more effective and simpler if there was only one central licensing authority, the director-general of Environmental Quality, instead of different organisations issuing licences for various types of industries.

He also proposed a grace period of five years from the date of gazetting of the regulations, after which, all industries, whether new or existing should be made to conform to identical standards.

Another significant omission from the Environmental Quality Act and regulations framed under it, covering various aspects of pollution is that problems posed by the tin mining industry have been overlooked altogether. Mr Gurmit Singh pointed out that although the Department of Lands and Mines, which has supervisory authority over tin mines, has its own rules, he said it is common knowledge that these rules are not being enforced.

He suggested that tin mines should also be brought within the ambit of environmental standards.

No provision has been made in these rules for the run-off of insecticide, pesticides, fungicide, herbicide and rodenticide from estates and other agricultural areas. This is another aspect overlooked in the law.

However, despite the inadequacies of the legislation, there has been some attempt by the government to get to grips with the problem of water pollution to reduce pollution hazards. Perhaps, in the near future, the standards will become more stringent and enforcement more effective with increasing public awareness. If so, one may hope that, unlike Coleridge's ancient mariner, Malaysians will have plenty of water, all fit for drinking.

## REGULATIONS ON NOISE POLLUTION BEING DRAFTED

Kuala Lumpur NEW STRAITS TIMES in English 10 Aug 79 p 15

[Text]

**KUALA LUMPUR, Thurs.** — A national committee is now working on a set of draft regulations for checking noise pollution.

The director-general of the Environment Division of the Ministry of Science, Technology and Environment, Mr. S.T.Sundram, said today that he expected the regulations to be completed, approved and gazetted by the middle of next year.

The committee comprises representatives from universities and various government agencies, including the Factories and Machinery Department, the

Highway Planning Unit of the Works and Public Utilities Ministry, the Health Ministry, the Road Transport Department, SIRIM, the National Broadcasting Department, the Civil Aviation Department and the police.

**In a big way**

Once approved, the division will be able to enforce noise pollution legislation in a big way, he added.

Mr. Sundram was commenting on a paper delivered by an officer from the division, Mr Goh Kiam Seng, who said that existing legislation on noise pollution control is difficult to enforce because of the lack

of specific noise standards.

He said that this was the loophole in our existing legislation which the committee hoped that the new regulations would eliminate.

The proposed regulations include the control of noise from sources such as motor vehicles and construction and industrial equipment.

Specific noise standards in zoning regulations relating to different land use zones such as industrial, commercial, residential and agricultural areas will be introduced and only premises conforming to these standards will be allowed.

CSO: 5000



THAILAND-PRODUCED SOAP POWDER CALLED ENVIRONMENTAL THREAT

Bangkok DAO SIAM in Thai 21 Aug 79 pp 7, 12

[Text] Specialists from the Environmental Research Institute of Chulalongkorn University have indicated that laundry soap powder presently in use is a great problem facing the protection of the environment of streams and rivers. The detergent produced in Thailand uses material which is not biodegradable and micro-organisms cannot break it down. The substance remain in the waterways.

The specialists state that if these substances accumulate steadily to a certain point, they become poisonous to marine life of all types to include the various micro-organisms. When these types of marine life are killed, the water becomes unusable. If the soap powder is thrown out on land, the residual chemicals will kill the micro-organisms whose life cycle will have been interrupted and the soil will become worthless.

The specialists of this Institute suggested that a solution to the problem would be the necessary change of raw materials used in the production of soap powder to those which are biodegradable. Existing factories need only upgrade their machinery to a small extent and there are no technical obstacles. However, there is a problem in that these [other] substances come from refined petroleum, the production of which is not great and is widely used throughout the world in ever-increasing quantities. Ordering these materials might take considerable time. The price of laundry soap powder must be raised by approximately 10-30 percent.

CSO: 5000



## INTERNATIONAL AFFAIRS

### POLAD-ZADE DISCUSSES RIVER-DIVERSION PROJECT

ID201553 Baku BAKINSKIY RABOCHIY in Russian 3 Aug 79 p 4 LD

[TASS correspondent Yu. Govorukhin interview with P. Polad-Zade, USSR first deputy minister of land reclamation and water resources, under the rubric "Commentary on the Project": "To Help the Volga and the Caspian"]

[Text] Work has been completed on the technical and economic substantiation for redirecting part of the flow from northern rivers into the Volga basin. A TASS correspondent talked to P. Polad-Zade, USSR first deputy minister of land reclamation and water resources, about the problems of implementing this project.

[Question] The Volga and the Caspian need help. What can you say about the water resources situation in that region?

[Answer] Our country is rich in water resources. The total surface flow of water over the USSR's territory is up to 4,800 cubic kilometers. However, these riches are unevenly distributed. Only 20 percent of the total flow of water is attributable to the country's economically developed regions, where 70 percent of the population live. [paragraph continues]

The remaining reserves of water are located in inaccessible, unexploited zones. To utilize them is the aim of the projects being elaborated.

The falling level of the Caspian and the increasing salinity of the Sea of Azov are particularly serious problems. The expenditure of water for various economic purposes in this region increases every year. Industrial and agricultural enterprises need water. A zone of guaranteed grain production is being created in the Volga region. Farms' fodder fields are also being irrigated now. Problems of maintaining fish productivity must finally be resolved, and for this end the fall in the level of the Caspian must be halted. Naturally, in the conditions which have arisen the emphasis is on the economical use of water.

Irrigation systems are being constantly improved--with their use, the highest possible yield is achieved per irrigated hectare with the least possible expenditure of water. However, it is not enough to save water--reserves must be substantially increased. The northern rivers can help the Volga.

[Question] What is the essence of the proposed project?

[Answer] Lake Onega, the Sukhona River and other sources located in the north of the European part of the country will supply water. Moreover, a part of the Pechora's flow will run into the Volga, via the Kama. It must be said that both existing canals, in particular the Volga-Baltic waterway, and new routes will be used to redirect water. This will reduce the cost of the project's implementation.

As a result, the level of the Caspian will be stabilized and the production of electricity at the cascade of Volga power stations will be increased. The water resources situation in the Azov Sea area will also be improved--some of the Volga's water will go into the Tsimlyanskoye reservoir, and then to the territory of Rostovskaya Oblast and Krasnodarskiy and Stavropolskiy krays. By raising the water level we will be able to take more from the Volga, and at the same time help the Don. With the same aim, the Kara-Bogaz-Gol Gulf will be dammed in the near future.

[Question] There are various fears that the redirection of part of the flow of northern rivers will entail undesirable ecological changes. Are there grounds for these fears?

[Answer] It must be said at once that adverse effects are not anticipated. The technical and economic substantiation of the project was preceded by in-depth research by scientists. The country's major planning and surveying organizations and scientific research institutes have been involved with the problem. After the implementation of the first stage of the project it is planned to take about 25 cubic kilometers of water--only a few percent of the total volume of flow of the northern rivers. The resulting supplementation of the Volga and Caspian basin will resolve a problem of statewide significance and will determine the strategy for the economic and social development of regions in the European part of the country for a long time to come.

CSO: 5000

## YUGOSLAVIA

### BRIEFS

**OIL SPILL POLLUTES SAVA RIVER**—About 3 tons of heavy fuel oil spilled into the Sava at Obrenovac 4 days ago, and oil slicks have now reached Belgrade. It has been established that an oil tank at the Obrenovac thermoelectric power station overflowed and the oil drained into the river. The pollution is expected to pass Belgrade in 3 or 4 days. Charges will be filed against the Obrenovac power station, which may be fined up to 1 million dinars. The pumping and filtering station at Bele Vode, which is one of the sources of Belgrade water supplies, was closed in time to prevent the pollution of drinking water. [Belgrade Domestic Service in Serbo-Croatian 1400 GMT 17 Aug 79 AU]

CSO: 5000

INDUSTRIALISTS', PRESS REACTION TO NEW ORDINANCE

Industrialists' View

Buenos Aires CLARIN in Spanish 17 Aug 79 p 10

[Article: "Transfer of Industries?"]

[Text] In the face of the controversial situation generated among industrial sectors by the sanction of an ordinance decreed by the government of Buenos Aires Province relating to the elimination of manufacturing plants from the metropolitan area, CLARIN interviewed Mauricio Kartun, president of the League of Industry and Commerce of General San Martin District, an organization which has about 3,500 members and is made up of the Economic Federation of Buenos Aires and of the Association of Industrialists of Buenos Aires Province, given that this area of Buenos Aires has one of the densest networks of manufacturing plants.

The industrial leader noted that "the general ordinance of transferring industries from the Greater Buenos Aires region constitutes the latest stage in a series of measures taken by the government of Buenos Aires Province. Its inorganic structure suggests a purpose that goes much beyond the simple enunciation of its goals. In its formal aspect its unconstitutionality is evident given that the industrial firms located in the area of Greater Buenos Aires and specifically in the General San Martin district developed on the basis of clearcut resolutions that authorized same. They have complied with the municipal and provincial provisions that apply in the field and have grown in such a way that they account for a fundamental portion of the industrial gross product so that their departure would mean essentially the elimination of a pillar of national industrial development."

[Question] Have the alternatives for the transfer of these plants been anticipated?

[Answer] The regulations lack proposals regarding the goal sought by the ordinance. Such a move would require certain basic conditions for transferring industries in terms of a physical infrastructure that the country does not have. But additionally the ordinance does not include plans to

provide energy, water, drains, roads, or consumer markets in those areas where, eventually, it would be necessary to set up the plants relocated from Greater Buenos Aires.

In the social field there is also no mention of how the problem of housing, schools, and hospitals would be solved and which the industrial workers would demand as a matter of right. The ordinance does not indicate by what economic means a transfer of this magnitude could be realized nor how an industrialist who experiences more than difficult circumstances, who has seen the consumers' capacity reduced, and who has seen how his sales fall drastically will be able to commit himself to move his facilities within 5 years considering the investment involved.

/Question/ What would the possible attitude of businessmen be?

/Answer/ It is reasonable to suppose that the industrialist who is obliged to move his industry from its present location under such conditions would choose to discontinue his operations, allowing his existing production sites to become abandoned sheds without anything justifying it.

In those countries where the ecological and production problems are dramatic, it is precisely the reverse alternative which has been followed: First, the new sites of the polluting industries were laid out with the simultaneous planning of clean-up procedures at their original locations. In case that such clean-up could not be adequately implemented, the sites of transfer were determined with different deadlines and conditions than those planned to be applied here. This is a problem of the entire community and it must be faced by the latter if the goal is to find a rational solution.

/Question/ What is the situation in the General San Martin section?

/Answer/ Some 8,000 industrial plants are located in this area among which are some that contain advanced technology and which additionally are unique in the country. They have been considered as polluting enterprises which have grown while striving to become model operations with the inclusion of the best techniques available.

The generalization with which this ordinance is casually applied would imply their liquidation as productive entities and very probably the discontinuation of their activities would not ultimately correlate with the goal that is apparently sought.

Everything seems to indicate that the ordinance is consistent with other aspects of national reality, with the various economic measures which inject modifications in customs policy, financial policy, and tax policy of unusual rigor.

Two opinions for our country exist: One of grandeur and an other of dependency. We Argentine industrialists aspire to the former. We wish to see an economically developed country, a country in charge of its destiny through its ability to build its national industry.

## Ecologists Defend Measure

Buenos Aires LA NACION in Spanish 18 Aug 79 p 4

[Article: "Ecologists Defend the Transfer of Industrial Plants"]

[Text] Dr Carlos S. Fayt stated that "the gravity of the ecological deterioration of Greater Buenos Aires results in the fact that no problem is so urgent and immediate as that of preventing and checking pollution and saving the environment." He added: "Pollution has gradually degraded the quality of life of the 7 million people who live in the metropolitan area."

Words like these were spoken at a meeting on "How To Avoid the Pollution of the Environment" organized by the Civic Education Campaign and which took place in the events hall of the Association of Buenos Aires Lawyers located on the ground floor at 1579 Lavalle. In addition to Dr Fayt the president of the Group for the Defense of the Environment (ADA), Dr Alberto F. Modet, also spoke as did the executive secretary of the Ecological Belt, Dr Roberto Azaretto, and Juna Escribano, lawyer.

Dr Fayt noted that "88 percent of the population of the metropolitan area lack sewers while 80 percent are short of water normally considered to be of drinking quality. They are harassed by sickness, infections, and the potentially lethal dangers of toxic chemical elements such as lead, chrome, arsenic, detergents, insecticides, synthetics, and plastics."

Carlos Fayt concluded that "pollution is not an inevitable by product of technological progress or population increase" but rather that "it stems from negligence and the nonobservance of laws, ordinances, and decrees and from the ill-intention of those who dump effluents clandestinely.

"Hence," Fayt said, "it is necessary that the population fight against pollution and demand the application of Law 7729 and the ordinance on the transfer of industries, including from those districts of the metropolitan area which were excluded from the measure."

Dr Alberto F. Mondet, in a documented presentation, noted that the pollution originates from moving as well as stationary sources. Among the former are the gas fumes of automobiles and other moving objects while the stationary sources are related to the burning of garbage, combustion for heating, the generating of electric power, and industry. The municipal ordinances in effect, he added, have reduced the principal problem of Buenos Aires by some 44 percent (the coal-dust produced by the burning of garbage), oxhydrocarbons by some 28 percent, and of carbon monoxide by 19 percent, respectively.

Roberto Azaretto reviewed the municipal effort in this field and noted what has been achieved so far.



"The establishment of the Ecological Belt," he said, "was part of a set of measures which included the deactivation of the municipal incinerating plants in the federal capital and months later in the areas neighboring Buenos Aires Province as well as the passage by the government of Buenos Aires of the Law on Garbage."

Dr Juan Escribano said: "There are a certain number of manufacturing plants which besides meeting all the conditions to effect the improvements called for by the regulations now point to the unconstitutional nature of the existing ordinance in the metropolitan area."

"The declarations of the authorities of Buenos Aires Province inviting industrialists to get in touch with them so that they may be briefed exhaustively on the purpose and scope of the ordinance on the transfer of industrial plants are praiseworthy, but one should hope for an analogous attitude with respect to those affected by pollution."

#### Other Alternatives Suggested

Buenos Aires LA NACION in Spanish 23 Aug 79 p 8

[Editorial: "The Transfer of Industries"]

[Text] In truth one has to recognize that the decision of the government of Buenos Aires Province to proceed with the relocation of industries from Greater Buenos Aires is important. In that sense the discussion and questions raised in the first place are wholesome because they evaluate the government measures. In this case as in the case of others of similar importance, it is not at all easy to determine the final solutions because the affected interests cannot be certified and classified in Manichaean fashion into legitimate and illegitimate, that is, into those of a general order and those that are specifically individual. Both include the two aspects and have mutual influence over each other.

In this manner any drastic procedure and any haste will have to be discarded if one wishes to avoid causing greater harm than that which one wishes to correct or eliminate. There is no formula of immediate and integral application and neither is it appropriate to have one. Gradualism would appear to be, together with a defense of standards and safeguards seriously thought out without stubborn preconceptions or prejudices, the desirable method.

One must frankly admit that the question of Greater Buenos Aires transcends the exclusively provincial vision without the latter signifying overlooking the legitimate and priority concern of the local authorities. The concentration of manufacturing plants which gird the capital of Argentina has not occurred there without reason. Such a situation is due to a diverse range of reasons, from historical and geographic to economic and social. It is not the purpose of this commentary to stress the connection which the entire matter evidences with respect to ecology.

Precisely because it is not artificial, this megalopolis of the metropolitan area calls for facing the problem in the aggregate. The industries of the metropolitan belt represent a source generating pollution. This is the price of development and the elimination of the cause would suggest--theoretically--a discontinuation of the harmful effect, but it would be an alternative similar to that of cutting off one's head to stop the pain.

It would seem more reasonable to begin by not granting new start-up licenses, by mandating facilities to avoid the use of polluting effluents, by watching the water courses, by making an adequate inventory of the dangers originating from each operation. Additionally, it is pertinent to consider that the sources of employment require housing alternatives for those who's labor is dependent on the existence of such production centers.

The question pertaining to relocation has to be measured on the basis of the human and social problems that arise. All of this goes to indicate the magnitude of unavoidable situations.

The general concern about ecological deterioration is understandable and deserves praise. However, it is necessary to seek to strike a balance in order to understand all the conflicts stemming from the contemplated changes.

Deadlines, though extended, are not always sufficient to implement excellent projects. Hence a fundamental condition: The change should not be viewed as devastating. What must be done already, more than uprooting manufacturing plants without limits or exceptions, is to consider opposite alternatives. Generally, desirable changes must be made and generalized ones opposed. As for what is new, it is necessary to stress firm standards whose application must be sought earnestly. In these cases localization becomes more feasible because it occurs right from the start even though it will be prudent to formulate plans slated to avoid the present problem from recurring in another area in a few years.

The urban, sanitary, ecological planning of harmonious development is indispensable and constitutes the support base in the area.

Finally, in the realm of civic policy a drastic change such as that which one strives to bring about in the specific field is susceptible to repercussion of such magnitude that checking its final consequences becomes difficult.

The various alternatives that are expounded in the public debate warranted by the subject will have to be harmonized by the government. In the last analysis governments execute their assignment integrally if they know how to achieve the synthesis of opposite interests and standards involved and make a determination on that basis.

## Clandestine Slaughterhouses

Buenos Aires LA PRENSA in Spanish 18 Aug 79 p 8

/Editorial: "Clandestine Slaughterhouses"/

/Text/ Several national refrigerated storage facilities have denounced the existence of a "marginal subindustry" in the meat market that reportedly accounts for the removal or drop in prices of products slated for export. Said facilities assert that large quantities of unprocessed meat and at the margin of technical, sanitary, and fiscal controls are shipped to other countries thereby undermining the national interest and the refrigerated export industry. For this reason and in the light of newspaper reports about "the proliferation of clandestine slaughterhouses," the chief adviser at the Ministry of Economy conceded the existence of that problem, indicating that it was not easy to eliminate it. At any rate, he noted, an attempt is being made to try to have the general sanitary law which regulates the activity of refrigerated facilities applied.

Without underestimating the seriousness of the denunciations to which we refer, it is appropriate to report that they raise a problem that is not new in the country given that the appearance of the so-called "clandestine slaughterhouses" goes back many years, not only harming the export market but also the operations of local refrigerated facilities, tax revenues, and public health. It was for that reason that on 13 October 1970 the executive decreed Law 18,811 setting up standards and methods of operation at premises used as slaughterhouses or the marketing and storage of meat. It was stated as the basis of the law that the health and welfare of consumers must be protected, "insuring that meat and edible meat products distributed to them are pure, unadulterated, and adequately stamped, labeled, and packed." One of the consequences of the application of this law was that the operation of these clandestine slaughterhouses turned up in various locations of Argentina and that they competed on advantageous terms with licensed cold storage plants. It should be noted that in the area of Sunchales, Santa Fe, cattle thieves were rustling animals for slaughter and that this meat was distributed by said slaughterhouses without any sanitary control as is reportedly occurring now.

The refrigerated storage plants mentioned at the start impute the clandestine activity in the meat trade to "official inaction," an assertion that cannot be called into question if one considers that during the 9 years of the existence of the abovementioned law violations have been committed systematically and nearly always with the greatest degree of impunity. Already in 1974, according to a study published a year later by the Chamber of Regional Refrigerated Plants, more than 2 million head of bovine cattle were slaughtered illegally, a figure that represented 20 percent of the legal slaughter. In other words, one-fifth--one kilogram for every 5--of the beef consumed by the population in 1974 originated from clandestine slaughterhouses, probably

without meeting the most basic conditions of hygiene and public health. These frames of reference tend to provide an idea of the magnitude which the clandestine trade in meat products on the domestic market has assumed, but there is a lack of bases by which to estimate the volume of meat which is now reportedly shipped abroad under the same conditions.

The Argentine refrigerated industry and the consumers of one of the most valued food products are therefore threatened by a criminal operation which seems to be immune from checks on its development. The denunciations that we mention have been made precisely at a time when the authorities are promoting the transfer of refrigerated plants located in large population centers for reasons of public health. Will the existence of said "slaughter-houses" where legal and sanitary standards are a dead letter be less dangerous for the consumers' health?

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CSO: 500

## MAPANGAZIA, GWEMBE FARMERS ALLEGE PESTICIDE KILLS CATTLE

Lusaka TIMES OF ZAMBIA in English 8 Sep 79 p 2

[Text] Some farmers in Mapangazia area and Gwembe valley of Southern Province are complaining that their cattle and other livestock are dying in large numbers every month through poisoning.

A teacher who arrived from the area said in Livingstone yesterday that at Namembo village in Chief Mwenda's area alone more than 50 head died in four months after eating grass or drinking water sprayed with "Rogor" — a strong chemical used by cotton growers to kill pests.

Mr Leonard Hachenge blamed the situation on a Lusaka-based company for failing to advise growers to use the medicine properly.

Mr Hachenge said: "Some farmers spray the medicine in grazing areas or in water.

Some villagers who were jealous of others deliberately sprayed the medicine in areas where neighbours' livestock grazed.

"In the past four months more than 50 head have died after eating the poison around Nameembo village alone. If nothing is done to correct the situation, many villagers will lose their cattle," Mr Hachenge said.

Other affected animals were goats, pigs chickens and cats.

A similar report from Chisekesi said in the Gwembe valley some people used the medicine to kill guinea fowls, partridges and doves by putting it in water at places where birds go drinking.

Meanwhile, seven village headmen of Mbeza area in Namwala who were suspended last month and had their recognition withdrawn by their chief have said they would live without a chief.

In a written statement, the headmen, Mushala, Mpoko, Shikapande, Shicepa, Mutyumba, Shiloka and Muilo, said as traditional leaders they were not appointed by the chief, but were chosen by relatives and fellow villagers.

Chief Bright Nalubamba of Mbeza took the action against the seven headmen for alleged offences ranging from general irresponsibility, gambling to cattle theft.

The chief said he suspended the headmen after consultations with his traditional council and added that it should act as a deterrent to others holding similar positions in his area.

Among the guests who heard the announcement were Chief Mukuni of the Lenje, Chief Vamuka, chairman of Katu development committee, Mr Godfrey Laima, wife of the late Litunga of the Western Province, Namaya Mbikusita Lewanika and her daughter University of Zambia lecturer, Dr Inonge Mbikusita Lewanika, and Namwala governor, Mr Hatchwell Mwanamulando.



## PREPARATIONS BEING MADE FOR ENVIRONMENTAL PROTECTION CONFERENCE

LD201900 Moscow TASS in English 1645 GMT 20 Aug 79 LD

[Text] Moscow, August 20. TASS--The USSR is preparing actively for the all-European summit conference on cooperation in the protection of the environment. The idea of holding such a conference is known to have been advanced by Leonid Brezhnev. Agreement of all the countries concerned has now been reached to hold the international meeting at Geneva this November, a TASS correspondent was told by Yuriy Israel, chairman of the Soviet Committee for Hydrometeorology and Environmental Control.

It is planned to discuss at the forthcoming meeting, among other things, the ecological situation in the European region, to discuss the possibility of using rationally the water resources, flora and fauna, to set up a system for conducting observations connected with the environment.

A big chapter of the Final Act of the all-European conference in Helsinki was devoted to the protection and improvement of the environment. It notes that to take care of nature in the interests of the present and future generations is among the tasks that are of great importance for the welfare of the peoples and for the economic development of all countries, that problems linked with the protection of the environment can be solved effectively only on the basis of international cooperation.

It is exceedingly important, Yuriy Israel said, that the world meteorological organization has approved the programme of its European association to develop cooperation based on the principles of the Final Act. This programme includes fourteen major projects related to the development of new methods of forecasting weather and influencing it actively, study of climatic changes, problems of Sputnik meteorology, energetics, Europe's water resources, training of specialists, nature protection specialists, and also to the improvement of the existing methods.

One of the projects provides for efforts to ensure the purity of the Baltic Sea. The Baltic states, including the USSR, have signed a convention providing for human and biogenic influence on the sea. Powerful purifiers have already been set up in several countries on the suggestion of scientists, and ships have been provided with installations that lower the level of Baltic Sea pollution.



In the Soviet Union, Yuriy Israel said, protection of the environment is a matter of state concern. In the recent years alone government laws and injunctions have been enacted aimed at ensuring the purity of the Volga and the Ural rivers, the Azov, Caspian and Black seas. More than 2,000 million roubles are being spent annually from the Soviet state budget on nature protection.

The activities of the Soviet Hydrometeorology Committee, its chairman said, covers all the territory of the USSR. Effective control allows to take active measures to prevent the pollution of the atmosphere of towns, arable land, water reservoirs. Observations are being conducted in 350 towns and on approximately one thousand water sources.

Last spring's international exhibition "Environment-79" in Moscow was devoted to problems of protecting the nature. It showed convincingly the advantages of international cooperation in this domain.

CSO: 5000

CLEAN-UP OF BLACK AND AZOV SEAS CALLED INADEQUATE

Kiev PRAVDA UKRAINY in Russian 1 Aug 79 p 3

[Article]

[Text] The chemical industry enterprises located in Krymskaya and Khar'kovskaya oblasts are definitely working to carry out measures to protect nature and to improve the state of the environment. But an inspection has shown that these measures have been ineffective. Violations of the Law Concerning the Protection of Nature are occurring at the Perekopsk Bromium Plant, the Crimean Soda Plant and the Crimean Plant for the Manufacture of Pigmentary Titanium Dioxide. Specifically, the Perekopsk Bromium Plant has failed to install a furnace to incinerate industrial wastes; the Perekpkhimstroy Trust is the supplier of the furnace. Many of the environmental pollution sources have not been equipped with gas-purification equipment, and the existing facilities are not operating effectively. The various shops of the enterprise systematically violate production discipline, and this results in harmful substances flowing into the industrial effluent; air polluted by the production processes is discharged into the atmosphere without the necessary treatment to meet public health standards.

The Crimean Plant for the Manufacture of Pigmentary Titanium Dioxide has not put into operation a planned water-recycling system, and it has not completed the construction of a facility to utilize sulfuric acid. The plant does not monitor its water consumption.

At the Crimean Soda Plant there have been delays in carrying out measures to reduce the consumption of fresh water and to replace it with treated waste water.

The city of Saki is discharging into the sea effluent which has not been completely treated because the treatment facilities are overloaded. At the same time the construction of the new facilities is being carried out in a most unsatisfactory manner. Comrade Khazazun, manager of the Yevpatoriyastry Trust, has taken an irresponsible attitude toward his assignment, which was to put these facilities into operation in 1978. Even now there is no noticeable improvement.

An alarming situation exists with regard to the construction of treatment facilities at the Pervomay Chemical Plant, which is supposed to operate on an effluent-free system. For five months virtually no construction and installation work has been carried out. Industrial effluent continues to be discharged--without treatment--into the River Orel'ka, which runs into the Dnepr-Donbass Canal.

The Ukrainian SSR Committee of People's Control has demanded that Comrade Sushin, director of the Perekopsk Bromine Plant; Comrade Ivanov, director of the Crimean Plant for the Manufacture of Pigmentary Titanium Dioxide; comrades Feshchenko and Gutsal of the Saki and Pervomay chemical plants; and comrades Khazanzun, Sil'nov and Antonov, managers of the Yevpatoriyastry, Perekopkhimstroy and Pervomayskkhimstroy trusts adopt measures to accelerate the construction and opening of natural protection facilities and improve the operations of the existing treatment facilities, as well as gas-purification and dust-catching installations.

Comrade Sushin, director of the Perekopsk Bromine Plant, received a severe reprimand for displaying a lack of discipline. He was warned that he will be brought to even stricter account if he does not take effective measures to protect the environment.

Comrade Ivanov, director of the Crimean Plant for the Manufacture of Pigmentary Titanium Dioxide, also received a severe reprimand for his failures. A fine was levied against him in an attempt to obtain partial compensation for the damage caused to the state as a result of ruined agricultural holdings. Comrade Khazanzun, manager of the Yevpatoriyastry Trust, was also severely reprimanded.

Comrade F. Fedorenko, head of the Soyuzyodobrom All-Union Industrial Association of the USSR Ministry of the Chemical Industry, was informed that the enterprises under his jurisdiction are not performing satisfactorily in the effort to eliminate the discharge of untreated effluent into the basins of the Black and Azov seas and to prevent atmospheric pollution in Krasnoperekopsk. Consideration was given to Comrade Federenko's statement that a council of the association's directors will examine the materials gathered during the inspection and will take measures to improve production discipline. The targets for the rational use of raw materials and the protection of natural resources will be strictly met.

Local committees of people's control and on-site groups at the enterprises have been charged with monitoring more closely the fulfillment of environmental protection measures.

## POLLUTION OF UNDERGROUND WATERS IN LATVIA

Riga SOVETSKAYA LATVIYA in Russian 6 Jul 79 p 2

[Article by S. Drita, senior engineer at the State Geological Control Unit of the Geological Control Administration of the Latvian SSR Council of Ministers: "Do Not Muddy the Spring"]

[Text] As a source of water supply underground waters have a number of advantages over surface waters. Their temperature is more stable, they contain far fewer organic pollutants and bacteria, and they have good taste properties. In our republic about 40 percent of the total water demand is met by underground sources.

However, underground waters are sometimes not suitable for drinking. And one of the main reasons for this is pollution by discharges of various kinds. This happens with particular frequency in places where the aquifer lies close to the surface or is not covered by a stratum of rocks which are impervious to water. These unfavorable conditions exist in many of the republic's rayons.

There are quite a few cases of underground waters which have been polluted by petroleum products. This results from the building--which even now continues to take place--of petroleum storage tanks, oil refineries, motor vehicle depots and filling stations without taking into account the geological-hydrogeological features of the locality. The construction of any given facility does not always involve reliable measures to protect ground waters from penetration by petroleum products.

For example, hydrogeological explorations, which were carried out in 1975 in the area of the Tukums Petroleum Base, showed that oil products had been allowed to leak into the ground waters over a period of years. Localized pollution of underground waters had developed as a result.

A significant area in Tukums was polluted by the No 35 filling station and the the Remstroydormash Plant. Another major focus of the pollution

has been the oil storage tank belonging to the furniture division of the Vulkan Woodworking Combine.

The treatment facilities in Tukums do not yield the necessary results and are themselves becoming a source of pollution. The technology for treatment of waste water here is limited to settling tanks and chlorination. With these methods it is not possible to remove petroleum products, which end up in the Slotsene River and also penetrate the aquifer.

In 1978 studies were again carried out at all of the sites named. They showed that the pollution levels there had not declined.

Another cause for concern is the pollution of the underground waters near the Olayne plants for the production of chemical reagents and chemical pharmaceuticals, as well as at the experimental glue plant in the same area.

Within the last three years there has been a particularly sharp deterioration in the quality of the underground waters in the area of the sediment accumulator of the pharmaceutical plant. Hydrogeologists have frequently suggested to the management of the enterprise that the old accumulator should be discarded and a new one built; they also suggested that the plant should work with other plants to carry out treatment of the polluted underground waters. As of now, however, these measures have not been fully executed. It is evident that the plant does not give sufficient attention to environmental protection and considers it to be a matter of secondary importance.

Another source of the pollution which reaches underground waters can be seen in the dumps for production wastes; the sites for many of these dumps were chosen without consideration for hydrogeological conditions. This is what was done, for example, by the Riga Petroleum and Oil Plant, which built a dump for residual petroleum asphalt in the area of Inchukalns. And now the pollution of underground waters in this area is increasing rapidly.

In order to preserve the purity of the water which lies beneath the earth it is also important to make rational use of it and to consume it in such a way that the reserves of any given rayon are not reduced. Otherwise, conditions will develop to permit polluted waters to flow into the aquifer. It is especially important to watch the consumption and quality of the water in artesian wells because the slightest deviation from the rules may lead to a situation in which the pollution zone expands to a great depth.

The water code of the Latvian SSR makes it mandatory for water users to keep wells and other facilities and equipment in good repair according to sanitary-engineering standards. Many of these users have careful



attitudes toward the exploitation of their wells; these users include the Riga Railway Car Building Plant, the Riga Electrical Machinery Plant, the Ogre Knitted Goods Combine, the Druva and Sarkana Zvaygzne kolkhoz's of the Yelgavskiy Rayon and the Ropazhi Kolkhoz of the Rizhskiy Rayon.

However, the matter has not been approached this way everywhere. A poor attitude toward the exploitation of wells has been shown by the following: the Latviyas Stikls Production Association, the Riga Medical College No 3 and the Yeglava Holiday Hotel. And the Riga Etalon Experimental Plant for the Production of Measuring Instruments at one time drilled an artesian well near Yurmala and then completely forgot about it. It is now completely neglected.

Artesian wells which have been drilled in an amateur fashion and which are poorly equipped create a great threat of pollution and exhaustion of underground wells. This type of well is encountered particularly often in the rural regions of the republic. A majority of the wells in kolkhoz's and sovkhos's lack technical and geological documentation, nor do they have a public-health protection zone; readings of water quality and consumption are not carried out.

A selective check on the state of artesian wells in the farms of the Yelgavskiy Rayon showed that half of them were in an unsatisfactory state. Approximately the same picture was found in other rayons.

It cannot be said that the Latvian SSR Ministry of Agriculture is failing to take measures to improve the content of wells. An appropriate order has been published, and seminars are being held to study the rules for the exploitation of artesian wells. The Yelgavskiy rayispolkom has also begun to devote more attention to these issues.

However, more energetic measures are necessary to improve in a fundamental way the protection of natural waters. In our view, the successful resolution of these issues requires joint action on the part of the local soviets of people's deputies; the Main Administration for the Regulation, Use and Protection of Water of the republic's Ministry of Land Reclamation and Water Resources; the organizations of the Geological Administration of the Latvian SSR Council of Ministers and the Society for the Protection of Nature. As a first priority task it is essential to find and to monitor strictly all facilities which are direct or potential sources of water pollution. This will make it possible to develop and carry out for each case concrete and effective measures to protect water-bearing strata from depletion and penetration by harmful substances.

There should also be stricter control over the planning and construction of industrial enterprises, oil storage tanks, gas stations and treatment facilities; the siting of dumps should be done in cooperation with the



Ministry of Land Reclamation and Water Resources and the Geological  
Administration of the republic's Council of Ministers.

But all these measures will have a beneficial effect only when each kolkhoz  
and sovkhos shows genuine concern for the quality of the water around  
us, both on the earth's surface and in its depths.

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## CONTROLLING POLLUTION IN KALININSKAYA OBLAST

Moscow EKONOMICHESKAYA GAZETA in Russian No 26, Jun 79 p 16

[Article by O. Ocheretyanny, senior engineer-inspector of the Moscow-Oka Administration of the RSFSR Ministry of Land Reclamation and Water Resources, and V. Lobov, correspondent of EKONOMICHESKAYA GAZETA]

[Text] They used to feel sorry for the little River Osuga, which flows through Kalininskaya Oblast. And who could help but feel sorry for this poor victim; the Kamensk Paper and Cardboard Factory polluted it mercilessly. Now, however, it is time to feel sorry for another river and to envy the Osuga. It is now three years that the factory has had in operation two powerful complexes of treatment facilities, as well as a large-scale return-water supply system. Not a single liter of untreated effluent goes into the Osuga. And once again it has a reputation for being a beautiful and clean river where fish both large and small are caught.

Quite a few such stories with happy endings can be told about both large and small rivers in Kalininskaya Oblast. When the city of Kalinin opened treatment facilities designed to process 220,000 m<sup>3</sup>/day, there was a noticeable increase in the water quality of the Volga and the Ivan'kovskoye Reservoir, which is one of the main sources of Moscow's water supply. But will there be a complete halt--during the current five-year plan as planned--to the dumping of polluted effluent into the rivers of the Upper Volga area? Unfortunately, a hearty "yes" must be qualified by many "buts."

The first thing that should be said concerns the rate and quality of the construction work for water protection projects. In order to increase the rate and quality it was decided at one time to have the Kalininspetsstroy Trust of the USSR Ministry of Construction specialize in the building of treatment facilities. The Ministry provided a crew (and not just one) but the goal remains a goal. The trust's forces are as before dispersed among a multitude of facilities which have nothing to do with water purification, and Kalininspetsstroy is still unable to meet the deadlines for building the facilities which the rivers need.

This is now the situation: the USSR Ministry of Construction, citing the trust's excessive work load, is reducing the amount of resources to be expended on treatment facilities, and the trust, overloaded with work other than its own, is failing to meet these reduced targets. Deadlines have been missed for the opening of treatment facilities in the cities of Rzhev, Staritsa, Nelidovo, Kashin, and Selizharovo and at certain industrial enterprises. Also, in a number of cases the rivers' natural ability to cleanse themselves has been reduced to a minimum. Continuing to discharge effluent which does meet normative standards means that extremely serious and in some cases irreversible consequences will result.

The following "but" is related to the working of those treatment facilities which have been built and favorably received. And, in the end, what determines the effectiveness of the capital investment which has been made? In this case it is the regular treatment of effluent to the projected indicators. Alas, this has not been achieved in all places. For the sixth year in a row the Kalinin Khimvolokno Association has failed to reach the necessary degree of purification. And what about the planners? They, or more accurately the Leningrad branch of the Khimvolokno Scientific Production Association, has preserved a truly academic quiet; in all these years it has not found time to make recommendations on how to correct the operation of their own "offspring."

Treatment facilities are not being used to full capacity by the following: the Kalinin Electrical Equipment Plant, TETs No 4, the Likhoslavl' Radiator Plant, the Bezhetsk Sel'khoz mash Plant and other enterprises. There is concern about the operational quality of the city treatment facilities of the Vodokanal Oblast Production Administration of the RSFSR Ministry of Housing and Municipal Services. The treatment facilities in Likhoslavl', Torzhok and Bezhetsk are not being operated satisfactorily.

Surprising things sometimes happen. At the Kalinin Railway Car Building Plant they worked long and hard to set up a water recycling system. When it went into operation it was supposed to save the Volga forever from untreated effluent. Finally, construction of the basic facilities of the system was completed last year. But it turned out that the recycling system would be dry at least for the near future. The problem was that the new divisions which, according to plans, would use most of the recycled water, have not yet been built. As for the old divisions, which to this day continue to discharge effluent into the Volga, they --as it was found--cannot be hooked up to the system because the plans for the intra-plant mains are not ready.

The reader is justified in asking what the local soviets of people's deputies are doing to improve the construction and operation of treatment facilities. They are, after all, charged with coordinating and monitoring the actions of enterprises and organizations to prevent pollution of the many rivers which the oblast is fortunate to have.

We would not say that the Kalinin oblispolkom and gorispolkom are giving inadequate attention to issues of natural protection and, in particular, to the protection of water resources. The appropriate decisions are regularly made. But the good decisions frequently remain on paper, and there is inadequate monitoring of their execution.

How else can one explain the fact that despite the decision of the oblispolkom, a number of enterprises in the city of Bezhet'sk have still not built sewage systems. The interesting aspect of the situation is that the city has treatment facilities. Having built these facilities, the Kalininskoye'stroy Trust virtually stopped construction of pumping stations and of the systems of mains leading to the facilities. For this reason the polluted effluent from the enterprises is going into the Mologa and Ostrechina rivers instead of to the facilities. At the same time the treatment facilities are truly not overloaded. It is difficult to say whether this situation will be changed. The Kalininskaya Oblast plan for resource allotment stipulates that the construction of mains will have to be done on a budget which is becoming smaller every year.

Many garages of Kalininoblavtotrans are not hurrying to carry out the decision on the use of water recycling systems for washing vehicles, which continue to be "bathed" in drinking water. A water intake and treatment facilities for rain water have not been built in the industrial zone of the Lazurnaya Station in Kalinin. And it is the enterprises of this zone (the Glavnechemozemvodstroy and Kalininskoye'stroy plants and others) which have been responsible for the frequent instances in which petroleum products have been discharged in large amounts at one time into the Volga as well as into the city's treatment facilities.

Almost no progress has been made in deciding an issue as important as the storage and utilization of the sludge which is formed at the municipal and village treatment facilities. In Kalinin alone tens of thousands of cubic meters of it have been accumulated. However, the Kalinin gorispolkom has been working "to carry out" its own decision concerning the allocation of a plot of land to store the sludge.

The local soviets must also call the planners to stricter account. Also, the ispolkoms, which have at their disposal a finished plan, are often slow to carry out the details of shared participation, which does not bring the start of construction any closer.

The local soviets must use to full measure the great powers which have been given to them; they must direct, coordinate and monitor on the necessary level the large-scale construction of water protection projects which have been started in the city and the oblast. And there is still a great deal to be built. Next in line is the establishment of rayon and group treatment facilities and water supply systems for entire industrial zones.

## RESPONSIBILITY FOR NON-FULFILLMENT OF ENVIRONMENTAL PROTECTION MEASURES

Moscow GUDOK in Russian 28 Jul 79 p 2

### [Article]

[Text] The USSR State Committee on Labor and Social Questions and the presidium of the All-Union Central Trade-Union Council in agreement with USSR Gosplan and the USSR State Committee on Science and Technology have passed a resolution to establish in all sectors of the national economy the following procedures for withholding bonuses from organization which do not fulfill plans and measures for environmental protection and which do not observe the norms and rules for the use of natural resources.

Directors (chiefs and managers), their deputies, the main engineers of enterprises and organizations, as well as employees at other levels, who are guilty of not fulfilling plans and measures to protect the environment (including measures to put into operation treatment facilities to prevent pollution of bodies of water which are important for fishing), are to lose completely or partially the bonuses awarded for the basic results of economic activity.

Employees are to lose part of their bonuses (no less than 25 percent) if they fail to meet one or more indicators of the established plans and measures. If the plans and measures for environmental protection stipulated by the state plans for the economic and social development of the USSR are not fulfilled, employees are deprived of all of their bonuses until these plans and measures have been carried out, and this must be confirmed by those organs which are responsible for monitoring fulfillment.

The bonuses are completely or partially lost for that pay period in which the non-fulfillment of the plans for environmental protection measures occurred.

The managerial and other employees of enterprises and organizations which are guilty of failing to observe the norms and rules for the use of natural resources are to lose all or part of their bonuses for the basic results of economic activity.



The decision to withhold bonuses is made at the request of those organs which monitor the observation of norms and rules for the use of natural resources in their respective natural spheres.

Leading employees are to lose all or part of their bonuses at the decision of a leader of a higher organization in agreement with the appropriate committee of the trade union; other employees are to lose theirs by a decision of a leader of the enterprise and the organization in agreement with the trade union committee.

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## BRIEFS

**NEW WATER PURIFICATION EQUIPMENT--Pyatigorsk--**The Pyatigorsk Experimental Plant for the manufacture of Sanitary Engineering Equipment has begun assembly-line production of the Struya-100 and the Struya-400 installations which are designed to purify and supply water to residential settlements and prospecting parties in regions where there are no sources of drinking water. These equipment models, which were designed by the Moscow Giprokommunvodokanal Institute [State Republic Institute for the Planning and Surveying of the Municipal Water Supply and Sewer System], will make it possible to obtain respectively 100 and 400 cubic meters of pure drinking water. Their operating principle is simple: water from any source is pumped out and passed through a tubular settling tank and a system of purifying and disinfecting filters. The first of these units have already been sent to various corners of our country. A. Trilisov. [Text] [Moscow TRUD in Russian 28 Jun 79 p 3] 8543

**EARTHQUAKE NEAR TASHKENT--Tashkent--**On 20 June at 17 hours 57 minutes local time the residents of Tashkent felt underground tremors. The floors in apartments began to move, and dishes in cupboards began to rattle. The duty officers at the Tashkent Seismic Station reported to our correspondent that the earthquake took place 520 kilometers to the south of the republic's capital in the spurs of the Gindukush mountain system in the area of the Afghan city of Fayzabad. At its epicenter the earthquake registered a force of six. In Tashkent force four tremors were felt. The underground storm broke out at a significant depth from the surface of the earth--a depth of more than 200 kilometers. This is why ground movements were registered over a significant area of the Central Asian republics. There were no casualties and there was no damage. Yu. Ryazhentsev. [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 22 Jun 79 p 4] 8543

**ENVIRONMENTAL MONITORING--Maganadan--**What is the most effective and the soundest way to use our natural resources and at the same time to preserve the environment which we inhabit? These are the top-priority issues of concern for the staff members of the recently established Department of Observation and Monitoring from the regional administration of the hydrometeorological service. They constantly monitor the rivers, lakes and reservoirs under their jurisdiction, as well as the coastal zone of the Okhotsk and Bering seas; they also monitor the quality of air

over populated areas. Last year alone the employees of the department carried out studies of the hydrochemical conditions of 44 rivers in the oblast. In addition, pilots of the Magadan Civil Aviation Administration helped to carry out aerial observations in the Anadyr' River basin and in the coastal zone of the two seas. S. Glukhov. [Text] [Moscow VOZDUSHNYY TRANSPORT in Russian 30 Jun 79 p 1] 8543

ATOMIC EXHIBIT IN MOSCOW--An exhibit entitled "The Peaceful Atom in the Countries of Socialism" has opened at the Exhibition of USSR National Economic Achievements in Moscow. It is dedicated to the 30th anniversary of the Council for Mutual Economic Assistance and the 25th anniversary of the opening of the world's first atomic power plant in Obninsk. Bulgaria, Hungary, the GDR, Cuba, Poland, Rumania, the USSR and Czechoslovakia demonstrate their achievements and the results of scientific and technical cooperation. The exhibit contains individual displays by the Joint Institute for Nuclear Research in Dubna, and by the international organizations Interatomenergo and Interatominstrument. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 28, Jul 79 p 7] 8543

FIGHTING WATER POLLUTION--An important step in the struggle for the purity of rivers and reservoirs has been made by Kharkov scientists and specialists. They have put into operation the first stage of an automated system developed by them to control water quality in the Severskiy Donets River. Similar systems are being developed for the Dnepr, the Syr-Darya and other large rivers. These works, undertaken for the first time in the country, are a part of a general program for the comprehensive utilization and protection of water in the Soviet Union. [Kiev Domestic Service in Russian 0900 GMT 23 Aug 79 AU]

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CONTINUED POLLUTION OF RHINE INCREASES SALINITY LEVELS

Paris L'UNITE in French 8-14 Jun 79 pp 10-13

[Article by Frederique de Gravelaine: "Pollution—Europe Bad for the Rhine"]

[Excerpts] Each year, the Rhine carries 14 million t of sodium chloride (commonly known as salt); 12,000 t of zinc; 1,500 t of lead; 400 t of arsenic; 200 t of cadmium; 47 t of mercury, to which we must add 4 million t of sludge, 5,000 t of oils, detergents, phosphates, phosphorus, nitrates, and other chemical products in by no means negligible quantities. The Rhine, a mythical river, an essential waterway and a considerable water reservoir—the Rhine is the sewer of Europe.

The salmon left it a long time ago, scores of years ago. The fish that survive there you would not wish your worst enemy to eat. But fishermen continue to catch fish there just for sport. About three months ago, Georges caught a trout of an unknown genus: Salmon-colored skin, silvery scales, good size. After looking into the situation, it was found out that this in effect was a mutation due to lack of oxygen.

Still, 20 million Europeans get their drinking water from the Rhine.

It is easy to pollute. All of the riverine countries are doing it. Even before reaching Alsace, the Rhine is already the one European river that is most heavily laden with mercury. France and Germany add their part. Industry, agriculture, and the cities, at least in France—where Mulhouse no longer has a water treatment station and where Strasbourg purifies only 12 percent of its waste.

The international character of the river undoubtedly was not a help in keeping it clean for many decades; it is so simple to blame the neighbor for all this pollution and it is so simple to expect the other fellow to begin to clean in front of his banks. But it is so complicated to arrive at an agreement that would satisfy just about everybody.

## Salt Content Disquieting

The brine affair is a perfect illustration of this. Bad intentions, economic selfishness, the dreams of technocrats, and political inconsistencies suffice to create this deadlock. The Rhine's salt content has reached worrisome proportions: The salt content around Strasbourg may come to as much as 300 mg/l whereas the limit established by the WHO is 200 mg/l; France, of course, does allow 250 mg/l.

France is certainly responsible in this respect. By themselves alone, the potassium mines in Alsace dump 140 kg of salt into the river per second, almost half of the European waste. As a matter of fact, out of every 3 kg of material extracted from the mines, only 2 kg make it possible to produce potassium. A narrow canal transports the rest, sodium chloride, dissolved in concentrated brine, all the way to a point downstream from the Fessenheim power plant.

For more than twenty years, Holland has been protesting because it is at the end of the line, at the delta of the sewer. The protests became all the more vehement since Holland has a terrible shortage of sweet water; the country's underground water table is geologically salted. Drinking water and irrigation water create problems. Holland gets its water by treating the water from the Rhine.

In 1963, the riverine states—Switzerland, France, Germany, Luxembourg, and Holland—signed an accord entirely comparable to a convention approved in 1887. A commission against Rhine pollution was then created. Nice try! But since its mission was only to determine the state of the river, it only acted as an agency recording pollution figures. It took nine years to broaden its competence; in 1972, Holland took the bull by the horn and summoned an interministerial conference as the point of departure for more ambitious political action. To restrict waste from the potassium mines, France first of all proposed to create a salt silo. After several years of study, the undertaking proved to be impossible: The isolation of the mound would require a considerable bedrock; not a single community by the way agreed to have this mountain of salt on its land; finally, the cost of the operation rose to 700 millions instead of the originally planned 100 million.

After a period during which the idea was in limbo, France proposed that the brine be buried in the subsoil. The site chosen was a layer of Jurassic limestone at a depth of 1,800 m, the "Great Oolite," where several barrels of petroleum had once upon a time been extracted. In 1976, the riverine countries signed an agreement: It would cost F175 million to recover 20 kg of salt per second initially—including the operating costs over a period of ten years. France and Germany would each pay 30 percent, Holland 34 percent, and Switzerland 6 percent.



But the trouble began when the news was announced to the natives. The engineers had forgotten to inform them. Everybody was up in arms. The Alsatians hardly believed in the assurances given by the engineers: The site chosen, the basin of the Doller, is precisely one of the best preserved regions. It supplies 40 percent of the water needed by the population along the Upper Rhine. What would happen if the brine were to rise up to the water table?

"Are we sure that the injection system will be completely under control for ten years," asked Raymond Forni, the socialist deputy from Belfort. And an ecologist commented: "They are going to handle this like always; in-again, out-again. The tests already have gone wrong."

Certain scientific reports in the United States consider injection as a last-resort solution. The other solutions were subjected to hardly any study at all. For example, the utilization of sodium chloride to produce salt. But the market is in the hands of just a few monopolies. And Holland, the first country to finance the operation, is also a big salt exporter.

On the strength of these arguments and those of their voters who were ready to revolt, the Alsatian deputies deadlocked the National Assembly; the RPR [Rally for the Republic] representatives by the way were not the last to embarrass the administration in their eagerness to flex their muscle. The administration had to withdraw its bill for the ratification of the agreement. During that time, diplomatic tension with Holland became worse; Holland had already paid its share. But the brine continued to flow everywhere.

The case of the Rhine fortunately is not as desperate as all that. Although it constitutes the most serious form of pollution in the Rhine, mercury pollution has been declining slowly for several years. Caused above all by the chemical industry in Basel and by the Thann-et-Mulhouse enterprise, which makes mercury from soda through electrolysis, it is however particularly dangerous: "In a water environment, the mercury is transformed into methyl-mercury which is extraordinarily polluting because it is highly assimilable by the ecosystem; this is the model of the substance which is concentrated throughout the food chain," explained professor Carbiner, of Strasbourg, who was among the first to sound the alarm. The toxicity of mercury is tremendous: It attacks the central nervous system, especially the cerebral portion, and it causes serious locomotor dysfunction.

In 1972 and 1973, mercury pollution in the Rhine appeared in its full seriousness; hundreds of carnivorous fish, such as pike and perch, died. Among the surviving subjects, mercury doses 20 times normal were found. Emotions are running high in Alsace but this public opinion pressure was not enough to persuade the polluting manufacturers if it did not get anywhere in the world after the Minamata affair. The enterprises did not

agree to invest against pollution except if their international competitors were made to do the same thing.

This explains the drama which is taking place in the waters of the Rhine with regard to chemical pollution. "Certain chemical components are mixed into cocktails whose effects are little known," observed Roland Carbiner. This is true of pesticides, such as DDT, as well as PCB, used in making plastifying agents whose derivatives yield byproducts of the type of dioxin, the poison found at Seveso. Other substances, such as defoliants, present the same risk. The use of one of the most current ones, 2-4-5-T, was suspended by the European Commission (see L'UNITE, No 218). But the manufacturers and the National Forestry Office are exerting heavy pressure to have it restored.

The action of Community against chemical pollution however was more effective than against brine. In 1975, the European government agreed on a directive that very strictly limits the dumping of certain dangerous products, carried on a black list, such as heavy metals, pesticides, and cancer-producing substances. An agreement summarizing the directive was then signed by the countries bordering on the Rhine and by the EEC. It became effective this year and covers 1,500 products.

#### Nothing Big to be Expected

"From the legal and political viewpoint, this is all very well. But how will it work in practice?" Michel Carpentier, who is the chairman of the "Rhine" commission in Brussels, asked himself. The principle of competition always creates problems. Switzerland and especially Germany want to make sure that the competitors of their industries should be in as bad a position as the countries bordering on the Rhine. They are therefore fighting to make sure that the standards established for the Rhine will be the same for the entire Community. The Dutch advocate the idea of the specificity of the Rhine. As for the British, they would have preferred to have water quality standards established, rather than pollution emission standards, arguing that an isolated manufacturer in the north of Scotland is less of a nuisance than his competitor in the Ruhr. The idea of the same restrictions for everybody however carried the day, for obvious political reasons and thanks to the greater effectiveness of its implementation.

Progress is thus being made, little by little. Over the past two years, German industry invested more than F4 billion against the chemical pollution of the Rhine. But the Swiss have done little. The Alsatian fishermen remain disappointed: "You can yell, you can write to your mayor, you go to your local officials, but it all does no good," Claude Kunz, president of a Strasbourg fishing association, tells us bitterly. "As far as the Rhine is concerned," he said, "we cannot expect anything much." And so he prefers to fight for the river's tributaries and for the water table.

"The state of the water table is sad indeed," Pierre Gendrin, head of the regional water service at Colmar diagnosed simply. On each side of the Rhine, many square kilometers of the water table seem useless. Professor Carbiner found serious mercury contamination of certain species of fish in rivers sustained from the water table.

The hydrological system of the Rhine River Plain in effect is very standard. All the way to Colmar, it is the rivers that sustain the water table. Then the ceiling of the water table goes up to the level of the river; surface waters and underground waters are easily mixed. A map drawn up by the regional surface shows abnormal contents of sodium chlorides, sulfates, and nitrates in large underground areas.

The European Community was finally alarmed by this situation. On 19 June, the ministers of the Nine were to adopt a new directive on the protection of underground waters which called for the pure and simple ban on waste products carried on the black list. This decision perhaps came a little bit too large.

The water table however is one of the great sources of wealth of this part of the world, the most beautiful water table in Europe. But the trouble is that nobody bothers to look at it. The politicians are not interested in it. It would be absurd to fight against Rhine pollution while allowing the state of its tributaries and the water table that supplies it to deteriorate. Besides, the slow pace of international negotiations on the Rhine leaves little hope.

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## FEDERAL REPUBLIC OF GERMANY

### RESEARCH LINKS NOISE POLLUTION, HIGHER BLOOD PRESSURE

West Berlin DER TAGESSPIEGEL in German 11 Aug 79 p 11

[Article by Marion Kern: "Chronic Exposure Can Result in Heart Damage--Results From the Federal Health Office"]

[Text] Thundering trucks, screeching brakes, roaring engines are the modern "background music" in the life of most big city residents. The daily noise to which they are exposed at their place of work, within their own four walls and while in transit has for years been the number one environmental nuisance for an alarming majority of the nation's citizens.

At the place of work, noise prevention has been a much publicized requirement for years, one that has been imposed more or less successfully--whether with the order to wear hearing protection, or by efforts which recently have been intensified to reduce the noise of production at the source. It is surely because of these efforts that the high number of reported cases of noise-impaired hearing--which in the past few years moved up to first place as an occupational disease--declined somewhat this year for the first time.

#### "Soft" Noise of the Environment

The daily noise of the environment, on the other hand, with street traffic as the main culprit, is too "soft" to seriously impair the hearing ability. Thus, in environmental discussions it is classified only as a substantial annoyance and disturbance. This judgment will have to be revised. For the first time now scientists at the Berlin Federal Health Office, under the direction of noise expert Dr Ising, have succeeded in identifying noise as a risk factor in high blood pressure. Dr Ising says that "up till now this idea was very much disputed among the experts. Now we have the first solid proof."

Human reactions to noise are very diverse. Until now this is the reason all efforts were unsuccessful in establishing absolutely a relationship between the adverse effect of noise and elevated blood pressure. Instead of pursuing the usual course of working with two groups of subjects, one exposed to noise,



the other not, the Berlin scientists had the same group of "noise workers" in the bottling cellar of a brewery work alternately for several days with hearing protection and several days without and studied them continuously. The noise in the bottling cellar reaches 95 db [decibel] (A) on the daily average; with hearing protection it was decreased on the average by 13 db (A).

Approximately 50 percent of the subjects reacted to increased exposure to noise with their blood pressure higher by an average of 15 mm. There was simultaneously an increase in the amount of vanillin-mandelic acid and noradrenalin discharged in their urine. Noradrenalin, like adrenalin, is one of the so-called stress hormones. Vanillin-mandelic acid is a decomposition product of the stress hormones which directly affect the heart cells and then, for the most part, are transported back to their storage cells. But according to Dr Ising, in the case of an "excessive" reaction a part of them gets into the bloodstream and a small percentage is broken down into vanillin-mandelic acid.

Dr Ising concluded from the results of these studies that chronic exposure to noise can therefore result not only in higher blood pressures, but also in heart damage. Dr Ising emphasizes the fact that "our results agree with an outline of possible noise effects which was drawn up by the U.S. Environmental Protection Agency (EPA). In addition, it contains a discussion of vascular damage as related to a long-term increase in the adrenalin and noradrenalin content in the blood." Indications that exposure to noise can in many cases results in increasing the risk of infarction were also provided by experiments on rats. With exposure to noise the increased discharge of stress hormones in the experimental animals accompanied an enlargement of the connective tissue in the heart muscle. In cooperation with specialists from the Free University there are now to be further investigations as to whether there need also be concern about the danger of thrombosis.

#### More Infarction in the North

Beyond that, the question must be clarified as to why many people do not react at all to continuous exposure to noise, but others do react significantly. Clues to this are provided by an interesting result from the animal experiments: in animals suffering from a magnesium deficiency, more noradrenalin was released under exposure to noise. The studies on the noise workers also provided indications of a connection between a decreased magnesium content in the blood and an increase in blood pressure in the presence of noise. And, according to Dr Ising, "food researchers have pointed out that the magnesium content of food borders on the essential. The magnesium supply decreases as one moves toward the north, and at the same time the frequency of infarction is greater in northern latitudes than in the south."

Thus, noise does not have a damaging effect exclusively on the ear, as was previously assumed. A result of this finding is the question whether the low-frequency noise below 20 Hz, infranoise, which is scarcely audible to the human ear, does not also have effects similar to those of audible noise.



Investigations on volunteer subjects, who worked for several days in a special room under the effect of infranoise and then under quiet conditions, confirmed this idea.

Dr Ising says: "It was repeatedly claimed that infranoise causes nausea, headaches, dizziness and as a result of that a kind of vision disease. We found none of that. But variations in the heart frequency increased under infranoise, the amplitude of the finger pulse decreased. Infranoise, just like hearing noise, has the effect of a stress factor." But infranoise is virtually omitted in today's measurements of noise in db A. With the internationally accepted A-level for judging noise low frequencies are given less consideration than high ones. Low-frequency noise is very hard to reduce. In addition to many other sectors, this is also especially important in vehicles in which 90-80 percent of the noise energy in the infranoise region appears with levels of 100-120 db. This corresponds to only 50 db (A). This means specifically that drivers of vehicles need not fear hearing damage, but, in regard to the other effects of noise which have now been demonstrated in the Federal Health Office, they are exposed to the same risks--primarily earlier exhaustion--as in the case of continuous exposure to audible 75 db (A). This result will surely play an important role in the international discussion about A-evaluation of noise.

#### Faster, But With More Mistakes

Another result of the Berlin noise studies can also provide, among other things, pointers for accident research: subjects who were assembling electronic switchwork one day at 50 db (A) and then one day at 85 db (A) did work faster on the "noise days," but also made substantially more mistakes. This agrees with the research results from psychology that human beings are ready to make risk decisions significantly sooner when exposed to noise.

In an additional series of experiments, the scientists now want to clarify whether lower exposure to noise can also be judged a health hazard. Twenty subjects who are equally sensitive to noise will work for 10 days under varying conditions: with average traffic noise 75 db (A) and with infranoise levels between 3 and 6, 6 and 12 and 12 and 24 Hz. The actual noise exposure in the automobile corresponds in, say, a combination of 75 db (A) to infranoise at 110 db.

#### Discussion About Risk Magnitude

At present there is a discussion in the World Health Organization (WHO) as to whether noise must be added to the appropriate list as a risk factor in high blood pressure. Dr Ising says: "Our study will play an important role in the decision. Noise is not the number one risk factor, but it must not be forgotten." This must be emphasized in view of the fact that disproportionately many people are exposed to this risk factor: in the FRG alone more than 10 million citizens must live daily with external noise levels of more than 65 db (A). And roughly 3 million people work at noise levels of more than 85 db (A).

HAMBURG MAYOR DISCUSSES LOCAL ENVIRONMENTAL POLITICS

Frankfurt/Main FRANKFURTER RUNDSCHAU in German 14 Aug 79 p 4

[Interview with Hamburg Mayor Hans-Ulrich Klose by FR reporter Karsten Plog; date and place of interview not given]

[Text] In the future, environmental considerations will carry equal weight with economic considerations in Hamburg Mayor Hans-Ulrich Klose's political decisions in the Hanseatic city. Klose revealed the priority he will give specific environmental problems in an interview with FR correspondent Karsten Plog.

[Question] Your decision to give the Hamburg pollution control authorities greater power means that you have made the political decision to give economic and environmental considerations equal weight in the future. Was this just a shrewd way of getting out of a tight spot created by a financially starved pollution control authority and the Boehringer Chemical Works affair?

[Answer] This is a fundamental decision overdue in the entire Federal Republic and all highly industrialized countries. Our environmental situation--in the air, in water and on land--is bad, even though something is being done and matters have indisputably improved in some areas. But we cannot get a handle on the situation unless we make a fundamental political decision. We must make an end to the environmental degradation which we have hitherto tolerated. And in the future, environmental considerations must not be subordinated to political and economic ones.

[Question] Voices are already being raised from the economic sector to the effect that your intentions are inimical to business.

[Answer] This is rubbish. Taking a different position in our situation would mean the virtual end of technical and economic progress. Simply because people would get so worried that they would mistrust and oppose the influx of all new industries and all fundamental decisions with technical impact. The consequences must be obvious to everyone.

[Question] In the past your policy was to give first priority to employment and the creation of jobs. Does your new orientation mean a change of this policy?

[Answer] Jobs are still my first priority; it is just that our present policy no longer serves this purpose, because bringing the Reynolds Aluminum Company to Hamburg, for example, would probably be impossible today because it would be foiled by law suits on environmental grounds.

[Question] Would you still be in favor of permitting a polluting industry such as Reynolds to settle here?

[Answer] The question cannot be answered outright. There is a case to be made for prohibiting heavy industry from settling close to highly congested areas. It depends on whether the negative results of technology can be removed by technological means. Today, I would have reservations if we proceeded as we have in the past. Even though I must admit that Reynolds has imposed stiff requirements.

Besides, I believe that the numbers of jobs claimed to be lost to pollution control requirements, while correct in the short run, are erroneous in the long run. The environment cannot be protected without technologies and their production in turn creates new jobs.

[Question] Has Hamburg ever tried to attract companies manufacturing such technologies?

[Answer] Senator Wolfgang Curilla, responsible for environmental matters, has just publicly repeated a general appeal to this effect. I, too, have said that we would help such industries. Money is available for that purpose.

[Question] The port is vitally important to Hamburg. Plans exist for its enlargement, albeit to the detriment of a cultural area such as the fruit-growing and fishing village of Altenwerder. Environmentalists have already raised protests against the plan. Aren't you obligated to give absolute preference to economic considerations in a case like this?

[Answer] In this case it is probably so. To believe that a city can be kept alive if only the environmental viewpoint is taken into account would be quite unrealistic. There are always conflict situations. As painful as it was in the Altenwerder case, I would make the same decision today. There the main problem was not environmental; the bitter pill was the necessity to uproot people, which is a bit like expelling them. The entire damming of the Elbe, which has destroyed the large flood plains with their indigenous flora and fauna important also to life in the Elbe, is of much greater importance from the standpoint of environmental concerns.

[Question] What happens now with Hamburg enterprises?

[Answer] Polluting enterprises which constitute a danger will have to be reexamined. For the first time Hamburg has made available means (DM 5 million for 1980) to finance a program designed to improve the situation in such enterprises. The problem is to find out whether this is at all possible, and that can be done only by talking to the people involved.

It would be altogether wrong to raise a big fuss and make scapegoats of such enterprises. These enterprises must be cleaned up step by step as we are doing in urban renewal. This procedure must be applied also in the case of polluting enterprises.

I am amazed that industry or its representatives are reacting so strangely because all this is also in their own best interest.

[Question] You have to expect new alarms in Hamburg.

[Answer] It is quite possible that new problems will surface. Our monitoring system is now being built up fast. This is also what happened at the Boehringer company once monitoring began. I am convinced that the big headlines about us would quickly disappear if other cities would introduce such monitoring.

[Question] Is existing legislation adequate to provide for effective environmental protection?

[Answer] Let's just consider the Boehringer case. They want to keep on producing and get out of the adverse headlines. They are willing to do anything that is technically feasible. I trust that other enterprises will react similarly. Where there is no other way, public means will have to be used. We subsidize so much that is unnecessary; subsidies in such cases would make good sense.

[Question] Doesn't Hamburg stand for stricter legislation, as it demonstrated most recently in the Bundesrat?

[Answer] We will continue to do so. The real issue is always the makeup of interim regulations. New enterprises can comply with new legislation; the problem is what to do with those which we now have and which have already had to do much in a short time or have been unable to do anything because it is technically impossible. This is the reason for opposing elevation to the level of a norm of the TA-Luft (air pollution standards), which currently is no more than an administrative order.

[Question] Norbert Gansel, the Schleswig-Holstein Bundestag deputy, has recently warned Federal Chancellor Helmut Schmidt against neglecting the "greens" and ecologists in the SPD. The chancellor and Baden-Wuerttemberg SPD State Chairman Erhard Eppler clearly hold different views on these questions. Where do you stand in this spectrum of opinion?

[Answer] For me such classification is always a ticklish matter. I view the environmental movement--to avoid always using the designation "the greens," since this movement has for a long time been an integral part of the SPD--as a movement which is here to stay. It is objectively needed and subjectively of the utmost importance. Increasing numbers of people are getting worried about what we are doing to the environment. Politicians must take these fears and the feelings aroused by them seriously. If there were no environmental movement it would have to be invented.

With that I do not believe in thinking only in terms of conflicts. There need be no conflict between economy and ecology. Conflicts exists in specific cases and these have to be hammered out and decided. The party must take the environmental movement seriously, and not only for tactical reasons. Those who believe that alienated members can be won back into the party by a mere embrace are mistaken; they are smart enough to see through the ruse. They can be won back only by practical politics.

[Question] The SPD is looking for a federal deputy chairman. Would you endorse Erhard Eppler as a spokesman for environmentalists in the SPD?

[Answer] I have always believed, and that is my purely personal opinion, that Anke Fuchs would have been a good choice. I would prefer to see a woman in this post, and not only for environmental reasons; besides, choosing a woman is anything but in conflict with the environmental viewpoint.

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NEW DRAFT LAW PROVIDES FOR MEASURES FOR FOREST PROTECTION, REFORESTATION

Athens I VRADINI in Greek 16 Aug 79 p 2

[Text] Responding to criticism on the draft law introduced to the Chamber of Deputies, Agriculture Minister Io. Boutos said that the new measures included in the draft law assure a fuller protection of the existing forests and forest areas from fires and other dangers (arbitrary seizures) and assure their expansion as well.

Specifically, the minister said that through the implementation of its various measures and other regulations, the draft law will provide for a more organized and more systematic protection of the existing forests from fires, etc., for their surveying and inventory, and for their registration in a General Forest Registry to be established. At the same time, all grasslands which have neither trees nor bushes but, sterile as they are, can be used for forest cultivation, will henceforth be reforested compulsorily on the basis of a 5-year program. The area of these grasslands is estimated at 15.2 and not at 25 million stremmas as the press has reported.

But if such reforestation is not possible, or is not justified by the soil's formation, these grasslands will be used freely for arboricultural purposes or livestock raising exploitation, thus strengthening the country's farm economy. Every inch of the land will thus be utilized in ways beneficial to the country's land development.

The rest of the grassland areas will not be used as forest areas but will be available for housing, social or other specialized projects such as the extension of provincial city complexes as well as of mountainous villages, the establishment of tourist or athletic installations, the building of schools, the establishment of agricultural and forest industries in areas which are not national parks or protective forests and, in areas outside Attiki, the operation of quarries while taking care at the same time to restore the landscaping of the area, etc.

Thus, all activities in forest areas will be controlled in the sense that they will not occur except in cases when it is absolutely impossible to find other land areas. Such measures are necessary if only for reasons

of a more general benefit. There will also be greater restrictions in construction as well as conditions for the protection and support of forest growth.

Thus, the provisions of article 24 of the constitution will be strictly observed. Under this article "it is forbidden to change the restrictions on public forest and public forest areas unless it is imperative to exploit them agriculturally in the interest of the national economy or if their use is dictated by the public benefit."

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